A SYNOPSIS OF THE RACES OF BOMBYCILLA GARRULA (LINNÆUS).

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When Mr. Ridgway last treated the Bohemian Waxwing he found no subspecific differences in any part of its range. A recent examination and comparison of specimens of this species from Europe, Asia, and North America, including much material additional to that examined by Mr. Ridgway shows that the North American bird is decidedly different in coloration from that of Europe. The bird from Asia, though to a certain extent intermediate, is yet racially distinguishable from those of both Europe and North America. Three subspecies are thus recognizable, as set forth below.

The generic name Bombycilla Vieillot,² which has currently been used for this group, has been rejected ³ in favor of Ampelis Linnæus, on the ground that the type of Ampelis Linnæus is by tautonomy Lanius garrulus Linnæus. A recent examination of the original description of Ampelis Linnæus ⁴ shows, however, that while the word Ampelis was used in the synonymy, it was not in the sense of the Ampelis, but merely as part of a descriptive polynomial. Thus, according to the ruling of the International Commission on Nomenclature, this can not be construed as constituting tautonomy in a pre-Linnean publication such as Linnæus' Fauna Suecica. Consequently the type of Ampelis must be subject to subsequent designation, which apparently was first made by Gray in 1840, by whom Ampelis cotinga Linnæus was selected.⁵ The generic name for the waxwings, therefore, must revert to Bombycilla Vieillot.

¹ Bull. U. S. Nat. Mus., No. 50, part 3, 1904, pp. 105-109.

² Ois, Amér, Sept., I, 1807 (1808), p. SS, pl. 57 (type, by monotypy, Bombycilla cedrorum Vieillot).

³ Committee Brit. Ornithologists' Union, List Brit. Birds, 1915, p. 362.

⁴ Syst. Nat., ed. 12, I, 1766, p. 297.

⁵ List Genera Birds, 1840, p. 34.

Bombycilla garrula garrula (Linnæus).

[Lanius] garrulus Linnæus, Syst. Nat., ed. 10, I, 1758, p. 95 (Europe and North America).

Corrus lientericus TEMMINCK, Cat. Systématique Cabinet d'Ornith., 1807, p. 43 (nom. nov. pro Ampelis garrulus Gmelin).

Bombyciphora poliocalia Meyer, Vögel Liv.- u. Esthlands, 1815, p. 104 (nom. nov. pro Lanius garrulus Linnæus).

Bombycilla Bohemica Leach, Synopt. Cat. Brit. Birds, 1817, p. 6 (nom. nov. pro Lanius garrulus Linnæus).

Garrulus europœus Dumont, Diet. Sciences Nat., XXIV, 1822, pp. 184, 185 (nom. nov. pro Ampelis garrulus Linnæus).

Garrulus major Dumont, Dict. Sciences Nat., XXIV, 1822, pp. 184, 185 (nom. nov. pro Ampelis garrulus Linnæus).

Parus Bombycilla Pallas, Zoogr. Rosso-Asiat., I, 1826, p. 548 (nom. nov. pro Lanius garrulus Linnæus).

Bomb[ycilla]. brachyrhynchos Brehm, Vogelfang, 1855, p. 79 (middle Europe).

Bombycilla carulea Dubois, Rev. et Mag. de Zool., XII, 1860, p. 2 (lapsus calami pro Bombycilla garrula).

Bombycilla garrula vulgaris Hartert, Vögel paläarkt. Fauna, I, Heft IV, March, 1907, p. 456 (A. E. Brehm MS.) (nom. nov. pro Lanius garrulus Linnæus) (in synonymy).

Chars. subsp.— Colors darkest and most vinaceous.

Measurements.— Male: 1 Wing, 114 mm.; tail, 62; exposed culmen, 10.5; tarsus, 20; middle toe without claw, 16.

Both sexes: Wing, 110-120; tail, 62-70; exposed culmen, 11-12; tarsus, 20-21.5.

Type locality.—Sweden (designated by Hartert).3

Geographic distribution.— Europe: Breeds north to northern Russia and northern Norway, and south to about 65° north latitude; winters north to southern Norway; west to Ireland; and south to England, southern France, northern Italy, and Turkey.

Remarks.— This is the darkest form of the species, and in coloration is decidedly vinaceous above. So far as we are able to determine, it is confined to Europe. In the present connection specimens have been examined from Russia, Norway, Prussia, and Denmark.

¹One male from Norway. Most of the European birds examined in the present connection are without indication of sex, and therefore have not been used in the above-given measurements.

² From Hartert.

³ Vögel paläarkt. Fauna, I, Heft IV, March, 1907, p. 456.

Bombycilla garrula centralasiæ Poljakov.

Bombycilla garrulus centralasiæ Poljakov, Messager Ornith., VI, April, 1915, p. 137 (Zaissan district, southwestern slope of Altai Mountains, Turkestan, central Asia).

Chars. subsp.— Similar to Bombycilla garrula garrula, but paler and somewhat less vinaceous (more cinnamomeus) above, particularly on back and cervix; also averaging less vinaceous below (more grayish).

Mcasurements.— Male: Wing, 111–119 (average, 114.4) mm.; tail, 59–63 (61); exposed culmen, 10.5–11.8 (11.3); tarsus, 20–20.5 (20.1); middle toe without claw, 16–17 (16.7).

Type locality.— Zaissan district, southwestern slope of Altai Mountains, Turkestan, central Asia.

Geographic distribution.— Asia: Breeds in northern Siberia south at least to Vladivostok; winters south to Turkestan and central eastern China.

Remarks.—Birds of this species from northeastern Asia differ from Bombyeilla garrula garrula of Europe as mentioned by Poliakov in his original description of Bombycilla garrula centralasia, and undoubtedly belong to the same form. This race, though to some extent intermediate between Bombycilla garrula garrula and the North American bird hereinafter separated as Bombycilla garrula pallidiceps, is nevertheless worthy of recognition. limits of the breeding range are at present unknown, but it is without much doubt the breeding bird of northern Siberia. We have examined a summer specimen from Vladivostok. The area of its intergradation with Bombycilla garrula garrula is probably somewhere in western Siberia, but this remains yet definitely to be determined. A specimen from Hsing-lung-shan, 65 miles northeast of Peking, China, taken February 12, 1915, is paler and much more grayish both above and below than other specimens of Bombycilla garrula centralasia, and may possibly be a wanderer from North America, but for the present it is referred to Bombycilla garrula centralasia. Specimens of this subspecies have been examined from also Tokio, Iwaki, and Hakodate, Japan; Shanghai and Peking, China; and Bering Island in the Commander Islands.

¹ Average of 6 specimens from Japan, Siberia, and China.

Bombycilla garrula pallidiceps Reichenow.

Bombycilla garrula pallidiceps Reichenow, Ornith. Monatsber., XVI, No. 12, December, 1908, p. 191 (Shesly River, northern British Columbia). Chars. subsp.— Similar to Bombycilla garrula centralasia, but decidedly more grayish (less cinnamomeus) both above and below.

 $\label{eq:measurements.-Male: 1-Wing, 111-117 (average, 114.5) mm.; tail, 63-70 (65.5); exposed culmen, 11.5-12.2 (11.9); tarsus, 20-21.5 (20.8); middle toe without claw, 16-19 (17.2).$

Type locality.— Shesly River, northern British Columbia, Canada.

Geographic distribution.— Northern and central North America: Breeds north to northern Mackenzie and northern Alaska; west to western Alaska and western British Columbia; south to southern British Columbia and southern Alberta; and east to northeastern Manitoba. Winters east to Nova Scotia; and south, though irregularly, to Connecticut, Pennsylvania, Ohio, Indiana, southern Illinois, Kansas, Colorado, and southern California. Casual in Arizona.

Remarks.— The North American representatives of this species constitute a well-marked and readily recognizable subspecies which differs from Bombycilla garrula garrula in its paler, very much more gravish (less vinaceous or cinnamomeus), coloration both above and below, and from Bombycilla garrula centralasia as above indicated. There is considerable individual variation in the color of the upper surface, and some specimens in this respect overlap the characters of Bombycilla garrula centralasia; but as a whole the large series which we have examined shows a good average difference. So far as we have been able to determine, there is no geographical variation among the birds from North America, since those from the easternmost part of the range of the species appear to be just the same as those from far western localities. This to a certain extent might be expected, since this waxwing, so far as we know, does not breed east of Hudson Bay. No comparison, however, has been made of breeding birds from southern Alberta and southern British Columbia with those from more northern localities.

¹ Average of ten specimens from Oregon, Washington, and Montana.